

Work Order ID 51368

August 20, 2009 12:34:01 PM

Rush. *[Signature]*

Page 1

Item ID: D212-580-041
Revision ID: B2
Item Name: Cargo Mirror Assembly

Accept



Setup Start



Stop



Start Date: 08/20/2009 Start Qty: 1.00
Required Date: 08/20/2009 Req'd Qty: 1.00



Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: *MF* Date: *09-08-20* Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2161	Rev B2								

100

0.00



DOCUMENT CONTROL

DC

Document Control

Memo

for BG 09/08/20
Photocopy bluefile and create labels as per PPP D212-580-041 CHG003

5 09/08/24

110

0.00



Large Fab

Large Fab

Memo

1-Assemble on Jig DT8065 as per Dwg D2161-212-Weld as per Dwg
D2161 Identify as D2161-212 A/R SS ROD Batch: *1109213*

Large Fab

0.00

120

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

Quality Control

=> 5 09/08/24



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 51368

August 20, 2009 12:34:01 PM



Page 2

Item ID: D212-580-041

Accept



Setup Start



Revision ID: B2

Stop



Item Name: Cargo Mirror Assembly

Start Date: 08/20/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/20/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

130

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

D 09-08-24 ①

140

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME: 9:00am FINISH TIME: 3:30pm OVEN TEMPERATURE: 320°F

Hl 08/08/24

① X

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

BR 09-08-24 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 51368

August 20, 2009 12:34:01 PM

Page 3

Item ID: D212-580-041

Accept

Revision ID: B2

Item Name: Cargo Mirror Assembly

Start Date: 08/20/2009 Start Qty: 1.00

Required Date: 08/20/2009 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

160

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

9/8/24 @ 96

170

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

=> 8 08/08/24

④

f

180

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D212--580-
041 □ Location: _____ □ PPP Rev: _____

P 9/8/24 ④

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 51368

August 20, 2009 12:34:01 PM



Page 4

Item ID: D212-580-041

Accept



Setup Start



Revision ID: B2

Stop



Item Name: Cargo Mirror Assembly

Start Date: 08/20/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/20/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/08/24 HJ

h 09.08.24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

August 20, 2009 12:34:01 PM

Page 1/2

Work Order ID: 51368

Parent Item: D212-580-041RevB2

Parent Item Name: Cargo Mirror Assembly


Start Date: 08/20/2009

Required Date: 08/20/2009

Comments:

Start Qty: 1.00


Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
CCR264SS3-2  Rivet, Cherry	84	Purchased	No			170 160	Each	362.0000	4.0000			

08/20/2009

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	362	
108688	66	
108738	196	
112314	100	



7108688

D2011-103RevG  8" Mirror	82	Manufactured	No			170 160	Each	17.0000	2.0000			
---	----	--------------	----	--	--	-----------------------	------	---------	--------	--	--	--

08/20/2009

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	17	
43342	17	

43342

D2013-3RevC  Mirror Bracket LH, 212		Manufactured	No			110	Each	0.0000	1.0000			
D2013-4RevC  Mirror Bracket RH, 212		Manufactured	No			110	Each	0.0000	1.0000			

B51371 * Cd 09-08-24

B51372 * Cd 09-08-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

August 20, 2009 12:34:01 PM

Work Order ID: 51368

Parent Item: D212-580-041RevB2

Parent Item Name: Cargo Mirror Assembly


Comments:

Start Date: 08/20/2009

Required Date: 08/20/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2037-101RevD		Manufactured	No			170	Each	2.0000	1.0000			
												
Arm												

B 41854 ✓ 8/24/09

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

2

41854

2

MS21059L3

42

Purchased

No

170
160

Each

594.0000

2.0000

Nut Plate



8/24/09 ①

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

594

109962

94

111925

500

MS27039-1-08

44

Purchased

No

100
160

Each

3,489.000

4.0000

Screw



M 111925

8/24/09

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

3489

110467

192

110552

1297

110835

2000

M 110552

August 20, 2009 12:34:01 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

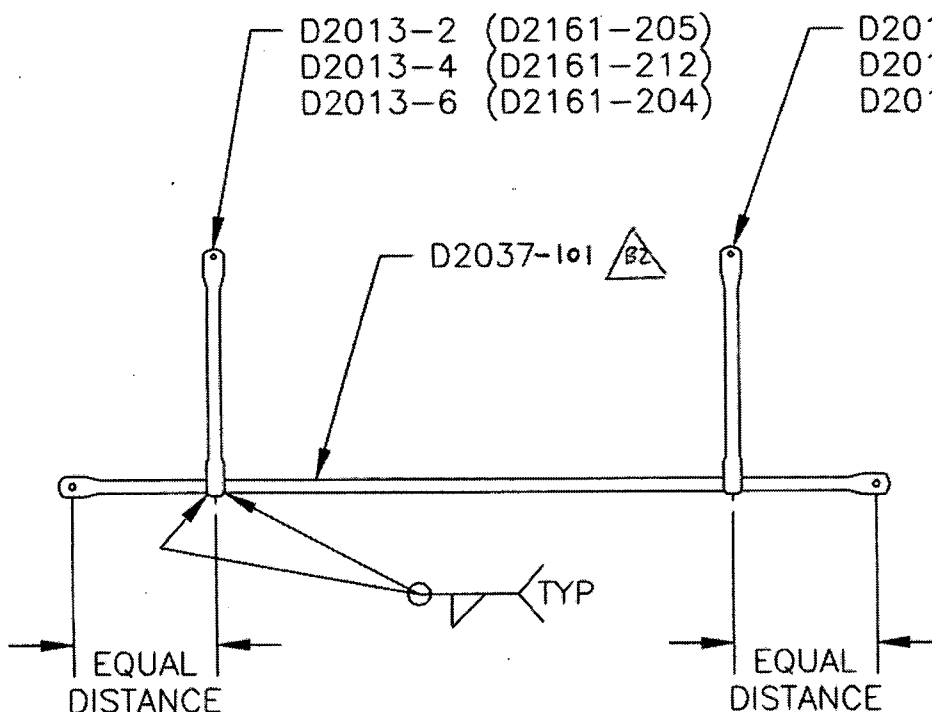
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART



51368.
mk
09-08-24



PLACE SHORTER ARM
ON SIDE OF JIG DT8065
LABELED FWD (TYP)

D2037-101
D2037 WELD FLAT
END PARALLEL TO
THE SHORT ARM

DETAIL OF D2161-204
DETAIL OF D2161-205
DETAIL OF D2161-212

NOTE: WELD ASSEMBLY
USING JIG DT8065

FINISH: ~~POWDER COAT ASSEMBLY BLACK~~
~~CRINKLE (4.3.5.3) PER DART QSI 005 4.3~~
POWDER COAT BLACK SANDTEX (4.3.5.7) PER
DART QSI 005 4.3

DESIGN	DRAWN BY	DART AEROSPACE LTD	REV. B
JB	RT	HAWKESBURY, ONTARIO, CANADA	
CHECKED KE	APPROVED 	DRAWING NO. D2161	SHEET 1 OF 1
DATE 99.06.07	TITLE MIRROR BRACKET	SCALE N/S	
A	93.04.29	NEW ISSUE	
B	99.06.07	REDRAWN FOR CLARITY ADDED -204/-205/-212 DESIGNATIONS	
B1	02.03.25	CHANGE FINISH	
B2	07.06.14	D2037-101 W	

RELEASED
KE 99.06.10

4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D204-562-041	5.0 lb	0 in	0 lb-in	3.80 in	19.0 in-lb
Dual Mirror Installation	2.3 kg	0 m	0 kg-m	0.10 m	0.23 m-kG
D205-563-041	5.0 lb	0 in	0 lb-in	3.80 in	19.0 in-lb
Dual Mirror Installation	2.3 kg	0 m	0 kg-m	0.10 m	0.23 m-kG
D212-580-041	5.0 lb	0 in	0 lb-in	-5.25 in	-26.3 in-lb
Dual Mirror Installation	2.3 kg	0 m	0 kg-m	-0.13 m	-0.30 m-kG

5.0 PARTS LIST

Qty 562 -041	Qty 563 -041	Qty 580 -041	Part Number	Description
X			D204-562-041	DUAL MIRROR INSTALLATION
	X		D205-563-041	DUAL MIRROR INSTALLATION
		X	D212-580-041	DUAL MIRROR INSTALLATION
2	2	2	D2011-103	MIRROR
1			D2161-204	MIRROR BRACKET
	1		D2161-205	MIRROR BRACKET
		1	D2161-212	MIRROR BRACKET
*2	*2	*2	D3015-3	LOCKNUT
*2	*2	*2	AN960JD516	WASHER
		4	CCR264SS-3-2	RIVET, BLIND
		2	MS21059L3	NUTPLATE
4	4	4	MS27039-1-08	SCREW

* PARTS ARE INCLUDED WITH D2011-103 MIRROR

51362